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DOGS: THEIR HUMANE AND RATIONAL TREATMENT.

BY GORDON STABLES, R.N.

IN TWO PARTS.—I. IN HEALTH.

TERSE and practical though I mean to be in these papers—for every line of space is valuable—I feel it my duty, both to my readers and myself, to make one or two prefatory remarks. They shall be brief. The advice given will be taken simply for what it is considered worth; but as a judge at Exhibitions of dogs both in this country and abroad, as well as reporter on such shows for the sporting press, and general writer of books and treatises on the management of all domestic animals, I have had considerable experience. All this might go for little, did I not love dogs, and constantly study their ways and their welfare; and being the owner of a considerable number of canine favourites, that lead a very happy life indeed, because their mode of being treated is rational, I have ample means of doing so. Some of the hints I shall give, and the suggestions I shall make for the better treatment of dogs, may be new to many; but they have been well considered, and are the result of an experience which I have not had to go out of my way to seek.

Since dog-shows were first fairly inaugurated in this country, our canine friends have taken a much higher standing in society, if I may so frame my speech. The breeds have been much improved, and the wish to obtain pure specimens is quite a craze with many people. The highest in the land take honours at such great Exhibitions as Birmingham and the Crystal Palace, and the poorest man in England prefers a well-bred dog to a mongrel. Indeed, mongrels are fast being improved off the earth; and I am not sorry for it, if only for the simple reason that, as a rule, a person will treat with more consideration an animal of value than a wretched cur. Do not understand me to mean by the word

'mongrel' a simple cross of one or more breeds. A cross is often of value; but the great object of all scientific breeders nowadays is to obtain stock in every way suited for the work for which they are designed; so that the points or properties of each breed are not, as the uninitiated often imagine, merely judges' fancy. Let only two dogs come to the front to illustrate my meaning. The first is the well-known greyhound. For speed and endurance, good sight, with power to kill and lift a hare, he could not possibly be better shaped. From stem to stern he is made to cut or cleave the air through which he bounds—even his chin seems reduced to a minimum for this purpose, and the top part of the nostril points outwards; his head is long and lean, but sufficient in muscle withal; his nostrils but little developed, because he depends not on scent; his eyes are bright, liquid, and large, and sight exquisite; his ears half erect, to catch the slightest sound; his chest wanting in breadth, and thus presenting no resistance to the wind in the forward plunge, but deep, nevertheless, to give lung-room and power to 'stay'; his loins are broad, strong, and muscular—for strength he must have—while the extraordinary development of muscle on the hinder-quarters gives him propelling power. Add to this, strong legs, good round cat-like feet, a long shapely neck, a tail which acts as a rudder, and a coat like a silken garment, warm and light, and we have the 'bench' and field properties of the greyhound.

And there is the Highland collie, *par excellence* the shepherd's friend, and often 'his chief mourner,' but now probably the most fashionable of all breeds. I will not go over his points and properties. But one has only to think of the work he does, and the weather he works in, and then glance at a high-bred specimen, to understand thoroughly what I speak of.

The dog, every one must admit, is man's truest and most faithful friend; and all right-thinking people must agree that he ought to be most humanely and kindly treated. Let me, then, consider somewhat in detail the most sensible

method of using him in health, with a view to keeping him well.

The first thing one should think about, before either buying a dog or accepting a dog as a gift, is a proper place to keep him in. If he is to be a house-dog entirely, he will hardly be so healthy, nor will he live so long as if kept in the fresh open air. But people in towns, or even in villages, are often compelled from want of space to keep indoors the dog that is needed for companionship or protection. In this case, while he may roam about all day and lie down where he likes, provided it be not in front of the fire, for this is most prejudicial to his health, at night his bed should be made in one particular corner. All that is needed is a mat or sack or old rug; but whatever it be, let it be called a bed, so that, when evening comes, the dog may be able to attach some definite meaning to the words, 'Go to bed, boy.'

An indoor dog's bed should *not* be spread behind a door, in any draughty place, in a cellar, or upon a brick or stone floor. To make a dog's bed in such spots is cruel and unkind. But to coddle him up in a warm bedroom, or to permit him to sleep on the sofa, or on one's own bed, is an error in the other direction; for a dog will not be so healthy if so treated; nor, if he is one of the beautifully long-coated breeds, will his jacket remain for any length of time as it ought to be. When many dogs are kept out of doors, they require a special system of kennelling, which I need not describe further than to say it consists of a shelter-house with straw-covered benches, and a well-ventilated door and roof, and a wire or fence inclosed run or yard, with a good supply of fresh water.

Where only one or two dogs are kept, the chain kennel is usually adopted. I do not hold with chaining dogs at all; but I cannot help people doing so; it only remains for me, then, to suggest some improvement which humanity demands in the usual outdoor dog box or barrel. Take the barrel first—it is the more primitive. In its pristine simplicity, it is simply a barrel with one end knocked out and a chain attached—draughty, damp, and dangerous. But given a good, roomy, strong, hard-wood barrel, any one can make a comfortable kennel out of it. Thus: scour it well first, and let it dry; have both ends closed up, and in the *side* near to one end proceed to saw out a square hole big enough for the animal's easy ingress and exit. Thus you have at once a nice kennel, free from objectionable draughts; and when well lined with straw, it is all that could be desired. The square carpenter-made kennel has usually the door in the gable. This is most objectionable. By all means have the opening at the side, and have the back to open when desirable, for the convenience of cleaning.

The chain should be as long as possible; and if space be plentiful, it is a good plan to have the chain ending in a round ring, and this ring to run upon a long stretch of strong wire-rope, so that the poor dog gets quite a range without being actually free. I have not the credit of inventing this capital plan; I first saw it in America when 'judging' there. All kennels should have a wooden floor, and be raised about a foot above the ground.

Kennel-bedding ought to be abundant. Quite half-fill the barrel or box—it will last the longer.

Dogs greatly appreciate a good bed. Change it whenever damp, and change it at least once a fortnight whether damp or not. The best bedding for winter is oaten or rye straw; the best for summer, wheaten straw. I do not think shavings so good; and hay is bad, because it fills the coat with dust and obnoxious insects. Sprinkling the straw well with a decoction of quassia-wood—two handfuls of chips steeped for a day or two in half a bucket of water—prevents fleas. Damping the dog's coat with this decoction kills these and other vermin. A little turpentine sprinkled over the straw has the same effect. It is a good plan in large kennels to put down a good layer of peat-earth; it is a cleanly, wholesome, deodorising substratum for the bed.

Outdoor kennel dogs should always have an abundance of pure fresh water for drinking. The pan should be a broad-bottomed one, not easily knocked over. The water should be changed every morning, and placed where it shall be out of the rays of the sun. In winter, care should be taken that it does not get frozen. Parenthetically: many shopkeepers in large towns have adopted the plan of keeping a dish of pure water near their doors for thirsty dogs to drink from, summer or winter. I do not think they lose anything by being kind to God's creatures. Would that many more would follow their example. If so, we would have fewer mad-dog panics than, unfortunately, there are at present. People, however, are beginning to know that muzzling dogs in summer, or depriving them of exercise by shutting them up, is more likely to produce than prevent that terrible disease *rabies*.

Now a few words about food and feeding. First as to the house-dog. He is usually a pet—too much so sometimes for his own health and comfort; and he is fed at all hours of the day, and often indulged in dainties, such as sugar, gross meats and fat, sweet cakes, butter, and other things most prejudicial to his welfare. Beer and even spirits are sometimes given to them; and I could cite cases of dogs I have known which became inveterate drunkards, finding ways and means of obtaining intoxicants that were astonishing.

A dog should be fed *twice* a day. I purposely italicise the word 'twice,' for although the breakfast should be but a light one, it is a necessity of healthful existence. If it be not given, the bowels become confined, the bile is ejected into the stomach; the dog seeks grass, and relieves himself in a natural way of what nature designed as an aperient. A bit of dry dog-biscuit, or a drop of milk or basin of sheep's-head broth, is all my own dogs ever have for breakfast.

A dog should have his principal meal—with a run to follow—at four P.M. in winter, and at five in summer. Variety and change from day to day are most essential. Dog-biscuits, dry or steeped, and mixed with the liquor that fresh meat or fish has been boiled in, with now and then oatmeal porridge, make a good staple of diet. Bread-crusts steeped may be substituted once a week. Meat should be given; but unless the dog has abundant exercise, too much does harm. Boiled greens should be mixed with the food at least twice a week; but they should be well mashed, else our friend will edge them on one

side with his nose and leave them. Paunches are good as a change; so are well-boiled lights and sheep's-head and broth. The head should be boiled to a jelly; and no kind of meat should be given raw, except now and then a morsel of bullock's liver or milt, to act as a laxative. Never give raw lights—they carry down air into the stomach, and may produce fatal results. Potatoes, rice, and most garden-roots are good, and the scraps of the table generally. Much caution should be used in giving bones. On no account give a dog fish or game or chicken bones. Milk when it can be afforded is very good for dogs, and buttermilk is a most wholesome drink for them. Let everything you give to a dog be cleanly and well cooked, and do not entertain the now exploded notion that anything is good enough for a dog. Whatever a dog leaves, should be thrown to the fowls, and not presented to him again, for the animal is naturally dainty.

If you want a dog to remain healthy, great pains must be taken that, both personally and in all his surroundings, he is kept clean. His food and his water should be pure and fresh; the kennel he lies in should always have clean bedding, and be periodically scrubbed and disinfected. Even the inside of his leather collar should be kept sweet and clean. He ought to be brushed, if not combed, every morning with an ordinary dandy-brush. This not only keeps the coat clean and free from unsightly matting, but encourages the growth of the 'feather,' as it is called. He should be washed once a fortnight. Washing a dog may seem a simple matter; but there is a right way and a wrong way of doing it, for all that. Here are the directions I should give to a tyro.

Choose a fine day. Wash him in the morning, so that he may not run the risk of catching cold or inflammation, by going to bed with a damp coat. Place small dogs in the tub, big ones beside it. Take the soap in one hand, and pour the water with the other over the fingers as you lather. The water must be warm, but not hot; the lather made on the jacket abundant. Leave the head till the last, else your friend will treat you to a shower-bath by shaking himself. After he is well lathered and rubbed, squeeze and wash out all the soap, first with warm, and finally with cold water. Next give a douche-bath in the shape of a bucket or two of cold water all over; and let him run about a minute or two to shake himself. Now take a rough towel and dry him as well as possible, and then take him out immediately for a run. You thus get the blood in circulation, and there is no fear of his catching cold. Let him have a bit of biscuit when he returns from his walk; and afterwards turn him into his kennel among good clean straw.

Cold and damp and draughts are very injurious to a dog's health; and it is worth while remembering that if a dog has to be exposed for a time to the wet without the power of running about and keeping warm, he ought to have something to eat. Nearly all inflammations in dogs are caused by exposure to cold and wet, while the animals are fasting.

In washing dogs, the mistake of using strong alkaline soaps should be avoided. Some people use soft soap. Nothing tends more to destroy

the gloss of the coat. This gloss is caused by an oily secretion from glands situated at the roots of the hair, and is meant by nature to protect the coat from damp and dust. If washed off, therefore, there is a tendency towards catching cold, and even skin disease. This may seem a small matter; but it is truly important. Use only the mildest of soaps, therefore; and if the dog be a very tiny one, the yolk of egg is better even than soap.

The better to protect outdoor dogs from wet or draught, it is a good plan to have the kennel movable, so that the back of it may be placed against the wind or rain. If this cannot be done, let it face always south or south and west. Be most careful that in summer the poor animal has the means of protection against the direct rays of the sun. It is bad enough for a dog to have to lie out all night in frost, but it is ten times worse for him to be exposed for even a couple of hours to a strong summer's sun. I have known dogs drop dead from *coup de soleil*; and I have seen them digging holes in the gravel where they were chained, in a vain endeavour to find a cool spot and shelter from the sun's heat.

Where many dogs are kept, one cannot be too particular in the matter of cleanliness; and after the kennels have been washed down, they should be disinfected with carbolic acid in water—not too strong, for dogs loathe bad smells.

In feeding, always place the food in a clean basin or dish; on no account throw it on the ground, for dirt is as injurious to the health of a dog as it is to that of any other animal.

Exercise is most essential to the well-being of a dog. A man who keeps his dog on chain from one month's end to another, ought himself to undergo six weeks of precisely the same kind of punishment. If we would have our dogs healthy and happy, comfortable and good-tempered, we must give them their freedom for some time each day. It is better to take them for a good run quite away from home. My own dogs have a large-sized orchard as a playground; but nevertheless their delight at getting beyond its limits is unbounded.

The liver of a dog is larger in proportion to his size than it is in the human being, and is very easily put out of order. If the dog has not plenty of exercise, this organ is sure to become unsettled, and the health of the dog thereby injuriously affected.

Dogs have often to travel by train with or without their masters. They ought always to be placed in a strong basket or scientifically ventilated roomy box, the ventilating spaces being protected by iron bars, not flat, but raised, so that a parcel or box cannot deprive the dog of air. The Companies provide a 'boot' for dogs. This place is seldom if ever clean; and it is draughty, were it ever so clean. When dogs are sent on journeys on chain, the collar should be a leather one. A metal one slips easily over the head. Guards are, as a rule, kind to dogs. Sometimes dogs in transit are left longer at stations than they ought to be, and kind-hearted strangers often give them a drop of water, or open their bags and find a biscuit or morsel of bread for them. Such people will have their reward. If a label be attached to a dog's chain when he

is going to travel, fasten it close to the collar, else he may amuse himself by eating it. I saw some hounds the other day at a station which had not a notion where they were bound for, and as they had swallowed their labels, the railway servants could not tell either; so both dogs and men looked foolish.

People sometimes put a bit of brimstone in a dog's water-dish, by way of keeping him pure and healthy. A pebble would do as much good, for the brimstone does not dissolve. But a little sulphur now and then in the food is a capital thing; a little gunpowder is better, containing as it does, nitre, sulphur, and charcoal.

Now, just a word or two in conclusion about puppies. Never leave more than five or six for the dam to bring up; and if they are a valuable breed or strain, and likely to sell, be prepared with a foster-mother, lest more than six be born. For the first three weeks, the mother attends to them. After that, they ought to be taught gradually to lap warm milk, first with a little sugar. After a month, a little boiled corn-flour should be added; and at this age, commence to wean gradually, by letting them have day after day more food and less mother's milk. Complete the weaning during the seventh week, but, as I said, *gradually*, for sake of both pups and dam. Let them have a large shed to run in, and let it be a foot-deep in straw, and always clean and dry. In good weather, the pups ought to be as much as possible in the open air. There is nothing brings them on so well as playing in the sunshine. Pups must have toys, such as large bones, old boots, &c. It is wonderful the amount of fun they get out of such toys, and the amount of good such romping does them. Gradually let the food be thicker, and begin soon to give them a little broth as well as milk. Feed four times a day, till the pups are three months old; then three times a day until they are eight months old; then twice. Be careful with them about teething-time—that is, from the fourth to the seventh month, during which time they shed the milk-teeth and acquire the permanent ones.

Never let pups get wet, if possible; but if dirty, wash them well. While the mother is suckling, feed her well on the most nutritious diet, five or six or seven times a day.

In my next paper, I shall treat of the common ailments of dogs, and have a word or two to say about dog-bites, which may be found useful.

ONE FALSE, BOTH FAIR;

OR, A HARD KNOT.

CHAPTER XX.—THE MEGATHERION.

It was the noonday—which does not coincide exactly with the sun's meridian according to the accredited hour of the Royal Observatory of Greenwich—of early London life, and a great many men were lunching in the huge saloons of that prosperous institution the Megatherion. Companies with limited liability, and the prospectus of each of which must surely be penned by the imaginative goose-quill of some sanguine poet, are eternally starting concerns destined

to founder, and setting up gewgaw speculations that bring profit to none but the audacious promoter and the official trustee. But the Megatherion paid noble dividends, and flourished like a green bay-tree. It met a want, a real want. Clubs, of various sizes and varying pretensions, are as numerous now as, in the days of Johnson and Boswell—the tavern-haunting days—they were scarce. But clubs are too exclusive. They only admit their own members, with the rare privilege of a stranger to dine. Now, the big, admirably managed Megatherion was neutral ground, around the snowy table-cloths of which, or on the softly-cushioned divans of which, all men became brothers, and it was not necessary to submit to the club bore, or to meet the perpetual clique, or to run for ever in a monotonous groove.

The Megatherion did its best to reproduce some of the best features of club-life. It did its best, too, perhaps not quite consciously, to galvanise into existence some of the chief merits of the old coffee-house life which the French have borrowed from us, since it was in London, not Paris, that Pasqua, the Fanariote Greek, first brewed his coffee, and that the 'China drink—tea,' commemorated by Mr Samuel Pepys, was first in vogue. There was less of yawning and more of conversation—so cynics averred—in the free Megatherion than in some of those Pall-Mall palaces where old quidnuncs take possession of the bay-windows and doze in the easy-chairs, and whence young men are reputed to fly to miscalled clubs set up by specious adventurers, who dispense with entrance fees and clip subscriptions, to recoup themselves by drugged wines and overcharged dinners. Now, at the Megatherion, all admitted that the wines were good and not dear, and the cooking nearly perfect, the viands of the best quality, the table-equipage faultless, and the waiting good. There are spots in the sun, blemishes in the purest marble of Paros; and the young men from the Potteries, or Lancashire or Dublin, who came up to London to write for Society journals, did grumble that at the Megatherion the potatoes were too few, the chops not fat enough, and so forth; but there was a fair pennyworth for the penny.

At the Megatherion, then, many men were gathered together at luncheon-tide, as, much later on, a larger assembly would congregate at the more sacred dinner-hour. At one of the tables was a group of visitors to London, officers from Aldershot, two of them; the others, some five young men of some little means, from country districts; while the arbiter who ruled over them—though by no means the founder of the feast, in the sense of being the paymaster, was the only Londoner *pur sang*, the only genuine Cockney, included in the company—was no other than Ned Tattle, fresh from Egypt, more self-important than ever, a pert London sparrow among the diffident rustic chirpers. Mr Tattle had, and tried to have, an extensive country connection. He did not disdain the little arts by which such a connection can be kept up, still less the benefits accruing from it. An honorary contribution to a local newspaper now and then, in the height of the season—Ned had a deft way of handling his pen, and was keen as a sleuth-hound on the scent of gossip and scandal—and a

readiness to play the part of cicerone to notables from the manufacturing districts, brought him in much provincial renown and some pleasant invitations during the autumn. Nor did he disdain, as now, to dine or lunch expensively with younger and simpler men than he, who listened to his bantam crowing.

At a much smaller table, within earshot of the loud conversation of Mr Tattle and his friends, sat two gentlemen, one of whom was Arthur Talbot; while at yet another one, hard by, a solitary customer sat at his meal; a sunburnt man this, of seafaring appearance, but wearing the glossiest of broadcloth, the sprucest of shirt-pins, the neatest of neckties, and, in fact, no other than Chinese Jack, of Jane Seymour Street, Strand, W.C. At the Megatherion there is no division of classes. It is a public place of entertainment, and so, for that matter, are certain gorgeous hostelrys in Republican Paris, the *Maison d'Or*, the *Café Riche*, the *Café Anglais*. Pierre and Paul may come in if they like, in their honest white blouses, besmeared by stone-chips and mortar, and may roar for the canon of red wine and the bowls of broth, and be legally admissible among the starched waiters and the expensive fittings. But, somehow, the worthy Auvergnat stonemasons do not care to try the experiment. Just so might Mr Whelks, in corduroy, plunge into the Megatherion and order whatever he liked and could pay for; but he very sensibly confines his custom to establishments where he can feel himself at ease. Chinese Jack, at the Megatherion, laboured under no hereditary or educational disadvantage. He sat still, and looked like a merchant skipper, and was as sun-browned as an Australian from the Plains, and behaved very quietly and like a gentleman, seeming to listen to nothing, but hearing all, as if he had been the Ear of Dionysius.

To be a good listener is of itself an art—not with a social bias, not to be such a listener as was the high-born but mysterious Lovel, when he fascinated the garrulous Mr Jonathan Oldbuck in the postchaise journey from the Forth ferry to Aberdeen. That sort of listener acts a part, a secondary one, it is true, but still a part that admits of a good deal of quiet byplay and neat stage-business. But to keep one's ears open, as did Chinese Jack, to assume the ungrateful character of an eavesdropper without personal motive—this demands a great deal from a man too sensible to be imbued with a mere vulgar spirit of inquisitiveness. The lodger at Mrs Budger's private hotel in Jane Seymour Street was possessed of an unwearying patience, and could endure without wincing the stream of platitudes, the feeble jests, the tedious repetitions, the countless 'said hes' and 'said shes,' and the inexplicable references to unknown circumstances, that poured upon his auricular nerves. 'Have I not,' he would say to himself grimly, 'rocked the cradle for hours, and washed and washed, content if there were but a few shiny spangles at the bottom of all that turbid clay and iron-rust and shale! So it is with the patter of these fools.'

The particular fool to whose words Chinese Jack paid the most attention was little voluble Ned Tattle. On the homeward voyage of the good steamship *Cyprus*, he had had occasion

enough to take the measure of that Cockney chatterer; whereas Mr Tattle could have reported nothing as to the assistant-boatwain of the *Lascars*—'One of those native fellows, don't you know!' which boatwain nevertheless had been born within sight of the Norman towers of Castel Vawr. The little man was bragging in his usual style, and presently he mentioned a name that made Chinese Jack prick up his ears.

'That pretty Lady Leominster—the Marchioness, you know, that I saw so much of in Egypt, where poor young Leominster died,' explained Tattle, who did not like to cast his titular pearls before swine, and who had a shrewd suspicion that his youthful friends, ill grounded in *Debrett*, might mistake her Ladyship for a mere knight's wife, if he did not take the trouble to make them cognisant of the sacred strawberry leaves. As it was, they were all attention.

'Poor young thing!' resumed Tattle, emptying his glass and refilling it. 'I saw a good deal of her out in Egypt, where we were so intimate; and, indeed, poor Leominster consulted me more than once about his will. He had made her splendid settlements—the town-house, the Welsh border castle, the very finest place,' pursued the speaker critically, 'in all the west, and good pheasant covers—pleasant neighbourhood; and then there was his will. But he wanted to add a codicil, to make it all sure about the personality—a large sum in consols—and it was about that, having no lawyer at hand, that he asked my advice.'

The young men from the country and the subalterns of marching regiments eyed their London acquaintance with increased respect, as the confidant of a Marquis.

'It was all right,' went on Mr Tattle cheerfully, 'and so I saw in a jiffy; but Leominster being ill and shaky, was anxious, and I was glad to set his mind at rest. Poor fellow! he died there, and was brought back in his own yacht, to be buried. And the young Marchioness and her sister—a brace of beauties, I can tell you—came to Southampton with me. A nice mess they have made of it, since'—

'A nice mess! Why, hang it all, I thought you said there was money in heaps!' ejaculated one of the Aldershot officers, who, poor lad, was pinched for cash himself, since he had backed the wrong horse for more money than he could afford, last Derby-day, and had ever since that fatal race been compelled to propitiate tyrannical tailors and wheedle unpaid keepers of livery-stables.

'So there is money in heaps—sixty thousand a year in land, besides the funded property and foreign securities, as I happen to know,' returned the undaunted Ned, slightly exaggerating the Castel Vawr rent-roll in his desire to set the fancy picture of his own painting in a becoming golden frame. 'The question is, who is to have it? There can't be two ladies paramount, you know'—

'Why, surely,' said a stout young manufacturer, setting down his knife and fork—'why, Tattle, you don't mean to say'—

'I do mean; and the long and short of it come to this,' interrupted the Cockney oracle in his turn; and in his glib, saucy way, he proceeded to pour into the greedy ears of his auditory a garbled but tolerably coherent account of the

dispute between the sisters as to precedence and identity, garnished by many picturesque touches as to 'how mad Sir Pagan was when he heard of it'—'how Lady Barbara, that old cat of quality,' had been ridiculous in her excitement—and how the family lawyers were vainly trying to patch up the quarrel by offers of enormous pecuniary compensation, to avoid the disgrace of a public trial and newspaper disclosures.

Chinese Jack had noted the effect of these speeches and of the comments—more or less foolish and flippant—which they provoked, on Arthur Talbot, whom he perfectly well remembered as a chief-cabin passenger on board the *Cyprus*. He had seen the young man's colour change, and an angry light come into his eyes, and had marked the effort that he made to keep calm, and to repress the rising indignation which we all feel when we chance to hear a dear name bandied to and fro on the coarse and careless lips of strangers.

'Sweet upon one of them—but which, I wonder?' was the sneering comment of the sun-bronzed spy. 'I have seen him, if I mistake not, talking to both, on the moonlit deck. It needs all his philosophy to prevent him from wringing yonder absurd little creature's neck; and I, for one, don't think the worse of him for the impulse.'

The conjecture was perfectly accurate. Talbot did feel a longing to put a padlock on Mr Tattle's boastful tongue, by any means available; but it was one of those cases in which it is necessary to bear pain, as the Spartan boy endured the gnawing of the fox. No good could come from a squabble in a public place with a blatant little braggart such as his late fellow-traveller. He tried to shut his ears, then, to the little Cockney's chatter, and could only marvel at the man's impudence in representing himself as a friend and a confidential adviser of the Leominster party; whereas, to the best of Arthur's recollection, there had never been the most casual acquaintance between the late Marquis and the pert grandson of the Poultry fishmonger. There is no smoke, however, without some spark of fire; and in honest truth, Mr Tattle and the late lord had spoken together twice—once when, at Karnak, Tom had proffered the loan of his field-glass; and once at the First Cataract, when he had borrowed a red-bound guide-book from the Marquis. Lord Leominster had been the gentlest and the simplest of men, and never snubbed an intruder; but as for confidence and counsel, there had been none on either side.

Arthur Talbot, then, sat still, and tried to overhear as little as he could of the unwelcome babble of his noisy neighbours, desecration though it seemed to him to hear *her* name—hers—tossed in this manner to and fro from the tongues of the disrespectful. But Chinese Jack, his own sun-burnt countenance as impassive as a mask, drank in all he could, and believed as much, or as little, as commended itself to his powerful brain and his trained intellect. Presently he, too, almost winced, as he heard a name familiar enough to him.

'It was all—I'm sure of that—that Madame de Laloupe, a foreign Countess—you know the sort of people that go travelling about with titles, the half-French, half-Polish woman we called the

Sphinx, at Cairo; and a very queer bird she was—very thick with Kourbash Pasha and all the Palace clique, and gave herself absurd airs. Somebody said she'd been a milliner on the Boulevards in Paris; and somebody else that her husband had been a Russian Secretary of Embassy, sent to Siberia for something rascally. Anyhow, I am certain she was the wire-puller in the whole affair. Miss Carew's only a puppet in her hands,' summed up Ned Tattle, in a final effort to revive the flagging attention of his audience.

But the young men from the country did not care much, or perhaps understand much, about foreign Countesses of dubious antecedents; and the conversation soon got into another groove, and the Leominster coronet and estates were no longer under discussion. Then Chinese Jack summoned the waiter, paid his bill, made his unobserved exit from the crowded Megatherion, and found himself again upon the free pavement outside.

'Now to hunt her up,' he said curtly, within the shadow of his bushy beard. 'A needle in a bundle of hay, of course. But a magnet can find a needle—sometimes. Let us try.'

SHETLAND AND ITS INDUSTRIES.

BY SHERIFF RAMPINI.

IN TWO PARTS.—II. ITS FISHERIES.

THE fishing industries of Shetland consist of the deep-sea or white fishing—locally known by the name of the 'haaf'—and the herring-fishing. But in addition to these two main branches, the Shetlanders are also largely interested, either personally or pecuniarily, in the Farøe and Iceland cod-fisheries, the North and South Greenland seal-fisheries, and the Davis' Straits whale-fishing. Roughly speaking, of the twenty-nine thousand seven hundred and five persons which comprise the population of Shetland, more than two-thirds gain their livelihood by the sea. Every crofter is a fisherman; his adult sons are sailors; his younger children are beach-boys; his wife and daughters are 'gutters' or packers or salters. The whole islands live by, smell of, talk of nothing but fish. 'Death to the head that wears no hair,' is the popular toast at every social gathering. 'May the Lord open the mouth of the gray fish, and haul His hand about the corn,' is the fervent prayer of every Shetland fisherman and crofter. If by the white fish—cod, ling, and tusk—he earns his living, the gray fish—the saith or coal-fish and its young, sillocks or pillocks according to age—provide him with food for his family. As for yellow or smoked fish, they are almost entirely neglected in Shetland. Fish dried by exposure to the air only—*blaam* (blown) or *sookit* fish, as they are called, are the only cured fish which are appreciated as articles of diet by your true Shetlander. Of the various fisheries above enumerated, the 'haaf' was, until very recently, by far the most important.

Long before the Shetlanders possessed anything approaching to a fishing-fleet of their own, the teeming waters around their coasts were annually visited by the 'busses' of the Dutch fishing-fleet. To the Dutch, indeed, the Shetlanders owe no

inconsiderable amount of their present prosperity. All over the islands, these energetic foreigners established stations, which were the markets of the district—the outlet for its industries, and the source of its supplies. The town of Lerwick itself is said to have owed its origin to this circumstance. For at least two centuries, the yearly visit of the Dutch fleet to Bressay Sound was the one break in the monotony of the Lerwegian's existence. A great annual fair was held in the end of June on a hillock three miles from the town, still known by the name of the 'Hollanders' Knowe'; and some idea of the number of vessels which in these brave old times thronged Lerwick harbour during its continuance, may be gained from the tradition that it was possible to cross the Sound of Bressay—which is a mile and a half broad—on a bridge of boats formed by the Dutch busses anchored bulwark to bulwark. But for some time past, the number of the Dutch white-fishing fleet has been gradually diminishing. In 1882 only about a hundred and fifty spent Midsummer Day in Lerwick harbour.

For the last twelve years, the number of fishing-boats engaged in the 'haaf'—which begins in April and continues till about the middle of August—has averaged six hundred. During the years 1872–1874 there was a considerable decrease. But in 1875 the number rose from five hundred and forty-three to five hundred and sixty-three; in 1881 it reached to that of six hundred and fourteen; in 1882 it was six hundred and seventy-four. Many of these boats, however, are Scotch. It is stated that for the 'haaf' of the current year, a large number of Scotch boats have been already engaged; and for the first time, Scotch curers will compete with the Shetlanders in this particular branch of business. If this statement is correct, as we cannot doubt it to be, there is no question but that a considerable impetus will be given to an industry, which, although far from being neglected, has not yet been developed with anything approaching to the same degree of energy with which the herring-fishery has been prosecuted.

Hitherto, the principal obstacle to the extension of both the one and the other of these fisheries has been the cost of the new decked boats which it has been found necessary to substitute for the old 'sixerns' or six-oared boats which have for centuries been exclusively employed by the Shetland fishermen. These 'sixerns,' says the Report of the Shetland Relief Committee, 'are of a build peculiar to the islands, and closely resemble the Norwegian yawls. Slimly built, about six and a half feet broad, and three feet deep, and with from twenty to twenty-one feet of keel, they are manned by six men, and carry a large lug-sail containing about sixty yards of canvas. Although, from their frail appearance, they are not used by south-country fishermen, the Shetlanders, accustomed to them from infancy, manage them with consummate skill, and make marvellous voyages in them on the dangerous and boiling seas which surround their coasts.' But the great storm of July 20th, 1881, which destroyed the whole of the North Isles fishing-fleet, was the death-blow of the sixerns. Though the Shetlanders were loth to condemn their old favourite, and even yet can scarcely be got to admit its deficiencies, that unparalleled

disaster clearly proved that safety was only to be found in boats of stronger build as well as of greater register. It is satisfactory, however, to think that the lesson of that terrible summer's night has not been given in vain. 'The sixerns,' we learn from the First Annual Report of the Directors of the Shetland Fishermen's Widows' Relief Fund, just published, 'are gradually but surely becoming a thing of the past. At the principal stations—Gloop, Fethaland, and Whalsay—the boats have decreased in number by from one-third to three-fourths since last year. At Ollaberry and Haroldswick, the number is the same, though a decrease is expected next year; while from Burravoe, Mid Yell, Mossbark, and Haverø, come reports of a marked decrease. These boats are principally manned by old men, who cannot readily adapt themselves to the new large-decked boats which are now numerous in the islands, and which are manned by young men.'

The average annual amount of white fish cured for the twelve years from 1870 to 1881 inclusive was eighty-four thousand and thirty-eight hundredweight. The returns for the year 1875 were the highest, whilst those of the following year were the lowest, during that period. In 1882 the quantity amounted to sixty-eight thousand five hundred hundredweight. The price of fish has of late considerably advanced, and is still advancing. For the white-fishing of the current year the crews are already engaged. The general prices given by the curers are, for ling, per hundredweight, eight shillings and sixpence; cod, seven shillings and sixpence; tusk, five shillings and sixpence; halibut, ten shillings till May, and six shillings afterwards. Even at such prices, there must remain a considerable margin of profit to the exporter.

Very recently, a fresh departure has been made in the Shetland white-fish trade, the importance of which will be readily perceived, although only a rough approximation can be arrived at as to its present condition and rate of extension. The export of fresh fish—principally halibut, though including some cod and ling—packed in ice for the English markets, was commenced in the year 1880 by an enterprising firm of fish-curers in Lerwick, who chartered a steamer for the purpose. In 1882, the third year of the industry, some six or seven firms had embarked in the business; and the exports, which in 1880 did not amount to a hundred tons, had increased to four hundred and twenty.

It is, however, principally in respect of its herring-fishery that the progress of Shetland has been so rapid and so marked.

Prior to the year 1875, the curing and export of herrings could scarcely be said to exist in the islands. It was not that the fish did not frequent the coast; then, as now, the shoals visited Shetland every summer; and a certain quantity was caught by the 'sixerns,' and salted for home consumption. Between 1870 and 1874 the annual number of barrels so cured averaged two thousand and sixteen. But in 1875 decked boats owned by Scotch curers for the first time made their appearance in Shetland waters. At first the Scotch boats had it all their own way. But in 1877 two decked boats were registered as belonging to the islands. Five years later—in 1882—their number had increased to one hundred and eighty-three;

whilst, during the ensuing season, it is expected that the total number of boats engaged in the fishery will be between seven and eight hundred, of which close upon three hundred will belong to the islands. A glance at the subjoined table will show the steady and remarkable progress made in this important industry since its commencement.

Year.	Sixerns.	Decked Boats.	Barrels Cured.
1875.....	83	11	2,896
1876.....	78	91	3,828
1877.....	67	32	5,451
1878.....	92	25	8,458
1879.....	146	60	8,755
1880.....	145	72	48,552
1881.....	142	134	59,586
1882.....	106	266	134,000

It is, of course, impossible to say whether the trade will continue to maintain its present high figure. If it does, the future prosperity of Shetland is assured. For the moment, its supremacy as a herring-curing station in the north of Scotland is disputed by Fraserburgh alone.

Already the effects of this rapid development are beginning to show, not in Lerwick only, but all over the islands. Stations are being everywhere erected, curing-sheds put up, fishermen's houses built, piers constructed, shops opened. The boat-building trade during winter has been very brisk, and many new boats have been ordered from the south. In Lerwick, the price of land near the docks suitable for curing-stations has gone up at least a hundred per cent. Even at the high figure at which it is being sold or let, acquirers are not far to seek. Eleven new stations have been erected—chiefly for south-country curers—during the past winter, raising the total of those in the neighbourhood of the town, including the island of Bressay, to twenty-three.

The principal districts at which, during the current year, the herring-fleet will fish are: on the west side of the islands, Walls, Scalloway, Whiteness, and the islands of Papa, Burra, and Trondra; and on the east side, Lerwick, Yell, and Unst. About half of the east-side fleet will be stationed at Lerwick; the other half will be divided between Yell and Unst.

During the two herring seasons—the west side commencing in June and ending in July, and the east side commencing in August and ending in October—the departure and arrival of the fishing-fleet is one of the most striking and picturesque sights which Shetland has to offer to the stranger. Boats of all nationalities are to be found in the fleet—many Irish, more Scotch, some French, some Prussian, some from Yarmouth and Lowestoft, others from the Isle of Man. The Dutch herring-fleet, which in 1873 consisted of one hundred and four vessels, and in 1882 of four hundred and ten, for the most part fish in Shetland waters. Occasionally disputes arise—quarrels about nets, squabbles about the fishing-grounds of the various vessels and nationalities; but, as a rule, order is fairly observed. It is not, however, to be expected that, as the fishings increase, this immunity from serious disturbance will continue to prevail. Even now, the presence of a fishery cruiser to

exercise the functions of a marine police is imperatively required; and it is to be hoped that the new Scottish Fishery Board, from which so much is expected, will feel it to be their duty to provide the islanders with this protection before the commencement of the approaching fishing-season.

The increase in the herring-fishing has been followed by a proportionate and natural decrease in the importance of the other industries of the islands. The amount of capital sunk and the number of Shetlanders employed in the Farøe and Iceland cod-fisheries, the Greenland seal, and the Davis' Straits whale fishings are slowly but surely decreasing. In 1882 the number of Shetland hands who shipped for the Greenland fishing was only three hundred—the lowest for many years; and not more than two hundred Shetlanders embarked on board the whalers for the same year.

It is by a reference to the official returns of the Customs and the Board of Trade that we can most readily appreciate the rapidity of the rise and the present importance of the mercantile and industrial interests of the Shetland Islands. In 1870 the value of the exports of Shetland, consisting entirely of salt herrings, dried salted cod and ling, was L.25,387; in 1882 their value was L.170,622—an increase of L.145,235. The shipping returns for the same years show a similar increase alike in its foreign and its coasting trade. To take the latter only:—In 1870 the inward cargoes (one hundred and eighty-six vessels) were 27,977 tons, and the outward cargoes (one hundred and sixty-one vessels) were 26,293. In 1882 the inward cargoes (three hundred and ninety-six vessels) were 65,271 tons; the outward cargoes (two hundred and eighteen vessels) were 49,165. Such figures require no comment.

That a great future is in store for these hitherto poor and almost unknown islands is a truth in which the Shetlanders themselves at least implicitly believe. The facts and figures stated in this and the preceding article will perhaps enable the reader to judge how far their pretensions are well founded.

BENJAMIN BLUNT, MARINER.

IN THREE CHAPTERS.—CONCLUSION.

PRESENTLY Mr Blunt came back from the window and sat down near the table. 'Lady Trevor, I have a question to ask you,' he said. His voice sounded husky and strange even to himself. 'You do not remember your mother?'

'Poor dear mamma died when I was quite an infant.'

'Nor do you remember your father?'

'No; I have not the faintest recollection of my father.'

'And you have never been told anything about either of them?'

'Oh, Mr Blunt, how do you know that? You tell me things that make me sad. How do you, an old fisherman, know so much about me and mine?'

'Listen, Lady Trevor. I, Benjamin Blunt, an old fisherman, as you say, knew both your father and your mother.'

'You knew my father and mother, Mr Blunt! You would not deceive me in this; I know you would not. And, as you say, no one ever told

me anything about them. You will tell me about them, will you not? I think about them both—oh! so often. But my uncle and aunt have never allowed me even to mention their names, and that has been the only unhappiness of my life.'

'I will tell you what I know about them on one condition—that you never mention to a soul, except your husband, what I am now going to say to you.' He spoke with a simple dignity that did not fail to impress his hearer.

'I promise,' came the low reply without a moment's hesitation.

Old Riley was basking in the genial warmth of the fire. He neither stirred nor spoke, and the others seemed to have forgotten his presence.

For a few moments, Benjamin Blunt's gaze went out through the sunlit window; and one might have thought he was watching the white-plumed waves as they came rolling shoreward; but in truth he saw them not at all. He came back to the present with a sigh, and when he began to speak, it was in a low troubled voice, which, however, gathered strength as he went on with his narrative. 'Your grandmother, the lady whose likeness is in that locket, ran away from home to marry a strolling player. It seemed to her friends as if she had disgraced herself and them, and they would have nothing more to do with her. After a time, your mother was born, and a few years later your grandfather the actor died. Then your grandmother took to keeping a child's school in a country village, and there your mother grew up, knowing nothing of her fine relations. Then your grandmother died, and your mother was thrown on the world. It was just about that time that—that my friend—a man in fact, known well to me, saw her and fell in love with her. He was a rough, plain-spoken fellow, years older than she—but not bad at heart, I think. He only knew your mother as the daughter of the village school-mistress. Well, he loved her as much as a man can love; and she—perhaps because she had no longer a home—agreed, after a time, to be his wife.'

'But she loved him in return, did she not, Mr Blunt?'

'She grew to love him afterwards—to love him very dearly. Well, they were as happy together as all the birds in the wood; and then by-and-by you were born, and they seemed happier still. But not for long. Your mother—died.' There was a sob in the old fisherman's voice as he spoke the last word.

Lady Janet slipped off her chair, and kneeling on one knee, took one of his rough hands in both hers and pressed it to her cheek.

'Well, he—my friend, you know—was nearly broken-hearted; but for the sake of the little one that was left him—for your sake—he tried to bear up like a man. I—I used to see a good deal of my friend at that time, and I often used to take you out—that is, he and I used together—into the fields and lanes where the wild-flowers were a-growing, or down on the shore to gather shells for a necklace, or into the little churchyard where your mother lay sleeping; and he used to say that the Janet he had lost was coming back to him in you, for you had her eyes and her hair, and just the same sunny smile; and after a

time he began to feel that there was something left worth living for.'

'Pray go on, dear Mr Blunt.'

'Well, one day a 'cute lawyer chap came down from London. Your uncle and aunt had lost all their children. You were their nearest relation, and they wanted you to go and live with them, and they would bring you up as a lady, and when they died, you would come in for all their money.'

'Yes, yes! My father and I were to go and live in London with my uncle and aunt.'

'You were to go; but not your father. He was a rough, ignorant fellow, and they wanted nothing to do with him.'

'But my father would not let me go?'

'At first he said no. But the lawyer came again and again, and told him how he was standing in his little girl's light—how, away from him, she would be taught and brought up as a lady—be rich and happy. How, with him, she would grow up a poor, ignorant, country girl, and as such she must live and die. At last they persuaded him—my friend, I mean—to let his little daughter go.'

'Oh, if he had but kept her! I would rather have had his love than all the riches in the world.'

'He thought—God help him!—that he was doing the best he could for his little girl. They bound him down by a solemn promise never to try to see her or interfere with her in any way. But he would not take the money they offered him—no, thank heaven! he would not take their money.'

'Poor papa! He did it for the best—he did it for my sake—but he should not have let me go.'

'For a long time after you had gone, he was like a crazy man. Day after day he went to the Willow Pool with his mind made up to end his troubles under its black waters. But there was something, he could hardly tell what, that kept him back. He seemed to hear his wife's voice whispering to him from among the trees, and he put off doing it till another day.'

'Why did he not fetch me back? How happy we should have been together! But where is he now? Can you not take me to him?'

Slowly, mournfully, the old fisherman shook his head.

'Do not tell me it is too late!—that—that!—'

Very tenderly he laid a hand on the fair young head. 'Your—your father is dead!'

She covered her face with her hands and wept silently.

Mr Blunt's arms went out involuntarily as if to clasp her to his heart; but next moment he drew them back. 'No, no! God help me! it must not be,' he murmured.

'But you can tell me where his grave is?' said Janet presently in a broken voice. 'You will take me to it, will you not—to his and my mother's grave?'

The fisherman rose from his chair and then sat down again. His features were working strangely. 'What shall I say? how shall I put her off?' he asked himself. Then he said aloud: 'Your father died at sea.'

'Poor—poor papa! But you were with him when he died?'

'Yes—I was with him. His last words, his last thoughts, were of you. He pictured you in his mind growing up refined, educated, a lady. He pictured you married to some rich gentleman, who would love you and cherish you and make you happy. And when he thought of all this, and of how little he could have done for you had he kept you to himself, he said: "My sufferings are nothing. Everything has happened for the best."'

Janet stood up. Her face was very pale; she gazed at Ben through a mist of tears. 'They are both dead,' she said; 'both father and mother lost to me for ever; but it is something to have learned their history, sad though it be. And you knew them both—were the friend of both! These hands have touched them—those eyes have seen them—you have spoken with them as you have spoken with me. And now you have saved the daughter in the boat called by the mother's name!' Her arms went round his neck; she pressed her lips to his cheek once, twice, tenderly, lovingly, as a daughter might do. 'I kiss you for the love you had for those I shall never see in this world. Think of me—find a nook for me in your heart, as if I were a child—a daughter of your own.'

During the last few minutes, Riley had woken up to the fact that something out of the ordinary way was being enacted at his elbow. It may be that he was not quite so hard of hearing as people generally credited him with being, and that a portion of the dialogue between Blunt and Lady Janet had been comprehended by him. In any case, an unwonted gleam of intelligence lighted up his withered mask of a face and brightened his eyes. 'Pretty dear!' he muttered to himself. 'Why, that must be Ben's own daughter—the little Janet he used to talk about so much twenty years ago. And she don't recollect her own father! Lord, Lord! how these young uns do grow.'

For a moment or two Ben could not speak. Then he said: 'I do think of you, and always shall, as if you were my own child. But after to-day, I shall never see you again—never again!'

'You must not say that. When my husband and I come back from India'—

'Ben Blunt will be sleeping quietly under the turf. But—you will send me your likeness and a lock of your hair before you leave England? I have some of your mother's hair, and—and you shall have half of it.' Then he added, speaking to himself: 'Only half; the rest to be buried with me.'

Old Riley was still mauling to himself. 'And to think she don't know it's her father she's a-talking to!' he murmured.

At this moment, Phil Gaylor entered the room carrying a letter in his hand, which he presented to Lady Janet. 'A note for your Ladyship from Sir Harry Trevor,' he said.

'A note from my husband!' she exclaimed with a little trepidation. 'Why has he not come in person?' With that she tore open the envelope, and read as follows:

MY DARLING—Lord Portisdown having heard of the wreck, has just driven over to see us. He is going up to town to-day, and is anxious that we should accompany him. There is only

just time to catch the forenoon train at Deepdale. I have sent a carriage to take you to the station, where his lordship and I will meet you. Thank our preserver, Mr Blunt, for me. Tell him that I greatly regret not having seen him at the hotel this morning. I inclose a bank-note for fifty pounds—all I have with me—which please give him in our joint names, to be used by him in any way he may deem best. I will write to him either from London or Southampton, and inclose a further remittance for the benefit of the brave fellows who were Mr Blunt's companions last night. We owe all of them a vast debt of gratitude. Start for the station as quickly as possible after receiving this, or we shall miss our train.—Yours,
HARRY.

The vision of a carriage at the garden gate brought Ruth into the room.

Having read the note over to herself, Lady Janet now proceeded to read it aloud. 'I must go at once,' she said, with a wistful look at Ben as she laid the bank-note on the table.

'The carriage is at the gate,' remarked Phil.

Ruth, taking the hint, quitted the room for a moment, returning presently with Lady Janet's plaid and hat. The latter article she regarded ruefully. The salt water had spoiled its beauty for ever.

'Yes, I must go,' repeated Lady Janet as she took one of Ben's hands in hers. 'But I shall not forget this morning. I shall love you, and often think of you when I am far away from dear old England. And you will not forget me, will you?'

'Forget you! Ah'—

'We shall only be away three years. I shall write to you, and either you or Ruth must answer me. And now—farewell! How my heart clings to you! When I was a little child, and you carried me in your arms, I feel that I must have loved you very much. I love you very much now. Farewell!' Once more her arms were round his neck; once more her lips were pressed to his.

'Farewell—my darling—farewell!' The words were little more than a whisper. The tears that he had kept back so manfully would be restrained no longer. He sat down on the nearest chair and the others turned their faces away; they felt that his grief was sacred.

Lady Janet turned to Ruth and embraced her affectionately. 'You must promise to write to me,' she said.

'Oh! your Ladyship!' exclaimed Ruth in dismay.

'And let me know before the wedding comes off. We shall not forget either you or Phil.' This was said in a whisper.

Phil stood with his hand on the latch of the door. Lady Janet turned to Riley, who had risen from his easy-chair and was now standing in the middle of the room. 'Good-bye, Mr Riley,' she said, holding out a hand to him.

The old man looked fixedly at her for a moment or two, then lifting a skinny finger and pointing it at Ben, he said: 'You're not going to leave him like that, are you?'

A startled look came into Lady Janet's blue eyes. 'Leave him like that, Mr Riley! I don't understand you.'

'You're not going to leave your father like that, are you?'

'MY FATHER!'

'Your father,' quoth the old man, 'as sure as you stand there.'

For a moment or two Lady Janet stood with her hand pressed to her side and a dazed look in her eyes, as of one suddenly roused from sleep. Then with a cry she flung herself on her knees by the side of Ben's chair. 'Are you—you who saved my life—my father?'

He laid a trembling hand on each of her shoulders, while a strange light came suddenly into his eyes. The secret he had kept so faithfully for twenty years had been told by another. He was absolved from his promise. His head bent forward till his lips touched the golden ripples of her hair. 'Janet!—my child!'

Author's Note.—This story having been dramatised, and the provisions of the law as regards dramatic copyright having been duly complied with, any infringement of the author's rights becomes actionable.

SALADS.

MUCH attention has during late years been turned to the most economical, rational, and nutritious way of cooking food. Our cooking has no doubt vastly improved since proper training in the art has become available; but at the same time the knowledge of the constituents of food-stuffs, their value and importance, has not been so widely disseminated. In no way is this fact so distinguishable as in our restricted use of salads. A certain proportion of food daily, fresh and uncooked, is essential to health; but not only are salads excluded from our general dietary, but fresh fruits following dinner are considered an extravagance in an ordinary middle-class family, except when guests are expected. This is a mistaken idea. Both salads and fruits are cheap articles of food, and require little or no preparation, and the fact that in eating them uncooked we have the full benefit of their mineral constituents, potash, soda, &c., which are often lost in boiling vegetables, should induce British housewives to serve them more frequently. In one or two books on Food, we find salads mentioned as 'a pleasant variety of food'; but in others, notably in the collection of lectures delivered at the South Kensington Museum by Dr Lankester, whilst he was Superintendent of the Animal Product and Food Collections, we see he dwells upon the urgent necessity, if health is to be kept in perfect integrity, of eating some uncooked vegetables or fruits every day.

Most people would like salads if only they had sufficient variety; but generally our ideas on salad are expressed in the old mixture of lettuce with beetroot, endive with beetroot, or plain lettuce. Amongst other nations, the French, Russians, Germans, and Americans especially, we find these only used as a foundation for a salad, the most pleasing varieties being obtained by different modes of dressing and the admixture of several flavouring substances—the *fourniture*, as the French call it. This consists of herbs such as chervil, tarragon, sorrel, and chives. But besides these, we might with advantage use celery, radishes, tomatoes, cold potatoes, red

pickled cabbage, even daisy and dandelion leaves. The dandelion is extensively employed as salad on the continent, but rarely in England. At the end of winter—the most difficult time to provide salads—the dandelion comes in very useful. To prepare it, the ordinary wild-garden dandelion should be taken when young and its leaves tied up like a lettuce, or the plant covered over with a pot. Its leaves are thereby blanched, and it loses its bitterness. Daisy-leaves require no such attention—they are simply used in their natural condition.

Salad to be palatable requires not only a tasty dressing, but fresh, well-washed vegetables. The best plan to prevent the appearance of any objectionable garden insects at table is to wash all the salad constituents in a basin of cold water into which a good-sized lump of salt has been thrown. Then, before beginning the dressing, the salad should be torn apart by the fingers, when no silver knife is handy, dried in a clean cloth, or, better still, swung in a net, so that it may not be wet enough to impoverish the dressing. To begin with a simple salad dressing, we may take the advice contained in the old Spanish proverb: To make a good salad, four persons are required—a counsellor for salt, a miser for vinegar, a spendthrift for oil, and a madman to stir all together. This we may paraphrase to mean, that over a salad filling an ordinary-sized bowl, we should sprinkle a salt-spoonful of salt, mix a dessert-spoonful of vinegar with three times as many of oil; pour it over the salad, and stir well with a wooden spoon and fork. Those who like a hot flavouring, should add either pepper or mustard. If pepper, it must be shaken over the salad after the salt; if mustard, it must be mixed with the vinegar before adding the oil. In Switzerland, a favourite dressing consists of two ounces of cheese pounded, a table-spoonful of vinegar, a little salt and pepper, and three table-spoonfuls of olive or salad oil. Another simple dressing is a fresh raw egg well beaten, a tea-spoonful of mixed mustard, three table-spoonfuls of oil, with vinegar added, when the mixture is quite smooth to dilute and flavour. A variation of this is to boil an egg hard, put its yolk into a basin, break it up finely with a wooden spoon, add a little French mustard or pepper, and salt, and while stirring evenly and continuously, pour in drop by drop three or four dessert-spoonfuls of oil, and at the end dilute with a dessert-spoonful of tarragon vinegar. These dressings are all palatable with fresh green salad; but a difference must be made in the case of cold boiled vegetables which can be served in the form of a salad. It is better to serve surplus vegetables as salads than to rewarm them.

Potato-scraps cut into small dice-shapes, carrots cut up finely, white haricot beans, lentils, cold peas, turnips, beetroot, &c., may be served all mixed together dressed with a rich mayonnaise, and will make a delicious off-hand dish. But potatoes are also pleasant in summer served cold as salad, instead of hot as an ordinary vegetable. Potato salad is also a good supper-dish for winter evenings. The kidney potato is the best kind for making the salad with in summer; and in winter, the red potato should be used, as the regents or any floury potatoes crumble too much to dress well. In preparing potatoes for this purpose, it is necessary to put them into cold water in their

skins, with a good table-spoonful of salt to about a dozen potatoes. They must then be allowed to boil up, and afterwards left to simmer gently until quite tender. When cold, they are peeled, and cut up into rounds as thin as possible. A layer of the slices is then spread over a glass dish, sprinkled with pepper, salt, finely shred spring onions, and some chopped parsley, or mustard and cress, and then saturated with oil and vinegar. Each successive layer, until the dish is full, must be dressed in the same manner. This is the only salad where as much vinegar as oil is required. Generally speaking, in other salads vinegar is used in about the proportion of one to four of oil; but potatoes require a great deal more, because of the amount of starch they contain; and not less than three spoonfuls of vinegar to four of oil will ever be sufficient. Some find their taste best suited by mixing equal quantities. The French put garlic into their potato salads; but though wholesome, it is not a favourite flavouring substance with English-speaking people.

Where a *souppçon* of the flavour is not objected to, a good plan is to rub a dry crust of bread with garlic or leek or onion, and place the crust at the bottom of the dish. This plan may be adopted for all salads, or the salad bowl may be rubbed round with the root, to attain the same object.

Another delicious salad is a lobster or salmon salad, one which is occasionally attempted, but rarely successfully so, by the inexperienced amateur. Tinned lobster or salmon is not very agreeable in this form, and the dish, therefore, should never be tried except when the fish are in full season. The best way to set to work to turn out a nice lobster salad is to get a good fresh lobster, cut it down the centre of the back; take out the flesh; divide each half into two, three, or four pieces; get the flesh out of the claws; and put it all to stand on a clean plate in a mixture of oil, vinegar, pepper, and salt, whilst the other preparations are being made. These consist in cutting off the green or outer leaves of the lettuce and endive, and washing them thoroughly in cold salt water with a little mustard and cress; drying them well; cutting the beetroot into thinly sliced rounds or small dice; furrowing the cucumber in and out, slicing it, and laying it in a little water, so that it may swell and look pretty; and putting two or three eggs on the fire to boil until hard. The dressing or mayonnaise is then commenced. Into a good-sized round basin, a tea-spoonful of salt and half a tea-spoonful of pepper are first thrown; for if they are forgotten, and added later, they make the dressing lumpy; the whites of two eggs are then drained off into a wine-glass, and their yolks put into the basin, and well stirred until smoothly mixed with the pepper and salt. A wooden spoon is the best for the purpose; and the stirring once begun, must be continued throughout in the same direction, or another cause of curdling will be produced. The best plan is always to stir with the bowl of the spoon towards one's self, and from right to left. After the yolks are well stirred, a gill of salad oil must be added very gradually, the stirring continuing slowly and evenly. It is important that the oil should be poured in drop by drop continuously, and the stirring be properly done, or the mixture will neither thicken

properly nor be smooth. In very warm weather, it is sometimes difficult, even with the utmost care, to get it to thicken well, the heat keeping it liquid. Where this is the case, the basin should be placed in cold water whilst the stirring is going on, and care should be taken to keep the spoon cold. After the oil is all stirred in, vinegar or lemon-juice to taste should be added. Lemon-juice will lighten the colour of the mayonnaise; ordinary vinegar will make it darker; whilst tarragon vinegar will very much improve the flavour of the now completed mayonnaise. A good thick layer of salad is then taken, dipped right into the mayonnaise, and put on the dish; successive layers follow until there is enough. The lobster is next taken from its dressing, and tastefully arranged in the centre and round the sides of the dish; the finish being given by ornamenting the dish with slices of hard-boiled egg, cucumber, and beetroot.

A word in conclusion as to salad bowls. A lobster mayonnaise is never dressed in the dish in which it is served; its shape, therefore, is immaterial. But it is important that a bowl in which ordinary salad is to be dressed should be round, and not oval. In France, a complete dinner service comprises several sizes of salad bowls. We in England are content with one size for the service of one, two, or a dozen people, and are never very particular as to the shape. Stirring or mixing cannot be properly done in oval-shaped dishes of small depth, yet this is the form most frequently offered for purchase. It is time that we made up our minds to two things—first, that every housewife should have three or four round salad bowls of varying size; and second, that no salad should be offered to a guest which has not previously been well mixed with a tasty dressing. Serving a Cos-lettuce longitudinally cut for each guest to dress as he pleases, on the crescentic plates which have been introduced, is barbarous, and unworthy the name of salad.

THE PROFITS OF BEE-KEEPING.

WHEN intelligence is brought to bear upon bee-keeping, that pursuit may be made amply remunerative. Taking the average of the expenditure and income from ten hives over ten years, a bee-keeper—a country labourer—informed the writer that during that period his outlay was sixty pounds, and his income two hundred and sixty-nine pounds; or an average of nearly twenty-one pounds of clear gain each year. If bee-keeping gives such large profits as this, it may be asked: 'Why have not capitalists turned their attention to this industry?' Simply because a monopoly is impossible. Only a few hives can be placed here and there, the flowers being widely scattered. This is why bee-keeping is so suitable for labourers and others who are poor, and to whom twenty, ten, or even five pounds a year extra is an immense boon. The labourer before referred to said to the writer: 'But for my bees, I do not know how I could have brought up my family.'

We have given one instance of the profits of bee-keeping, and it is much less favourable than

many. A gardener in East Lothian, a year or two ago, published a detailed account of the profits from one hive one season, and it amounted to seven pounds. We know of a railway official who, from twenty-five hives, sold one hundred and seven pounds-worth of honey in 1878! Certainly he lived in a particularly favourable locality, and 1878 was a favourable year; but even greater returns have been realised than that. We do not mention such instances in order to make people believe that they have only to go in for bee-keeping in order to clear large sums, but rather to show what chances people in the country have of bettering their condition. It must be kept in mind that there are many localities where, taking one year with another, an average of two pounds per hive may be realised.

Home honey sells at a high price—seldom less than two shillings per pound retail. But, it may be asked, if country working-men all take to bee-keeping, will not the prices fall and the profits become less? We don't think so. In fact, there are reasons for believing the opposite. The taste for honey and the demand for it are spreading, so much so, that immense quantities of very inferior stuff are annually imported from America to supply the demand; and this honey finds a ready sale. Of course it sells at a much lower price than the genuine article, and is used by a class that would think twice before giving half-a-crown for a pound of honey; though in reality they pay much more, for only a small proportion of what they buy as foreign honey really is honey.

'You can't adulterate eggs,' people will tell you; 'nor yet honey, if you buy it in the comb, just as the bees have left it, sealed and stamped with their own peculiar trade-mark.' And yet there is nothing more adulterated than much of the honey sent to us from across the Atlantic. The makers of wooden nutmegs, of cheese from lard, butter from suet, and who send the 'best Belfast hams' from Chicago direct, are fit enough for adulterating honey, even though it be sent across the Atlantic 'just as the bees left it.' And adulterated honey is a much more objectionable compound than sham cheese or oleomargarine. Most of it is nothing more than that glucose or artificial grape-sugar now so largely manufactured in the States for making spirits, and for the adulteration of sugar, honey, preserves, and everything sweet. But it is sweet, and bees will store up anything sweet. They are allowed to gather honey by day, and are liberally fed with this artificially prepared stuff by night, so that the real honey and the false are stored side by side. The real thing only serves to gain enough of the odour and a little of the flavour of honey to make it sell. Other adulterators give plain cane-sugar sirup, which is harmless enough, but is only worth twopence-halfpenny a pound. But even pure American honey itself is inferior; hence there never will be foreign competition in this article, as in the case of grain and meat.

In a few words as possible, we will direct attention to the best methods of bee-keeping. The great mistake beginners in bee-culture make is to get the bees before they get any knowledge of their habits and wants. Fired with a desire

to participate in the advantages reaped by some one who keeps bees and manages them intelligently, and so makes money by them, a swarm is secured, and duly placed in a spot sheltered from the wind. Partly because of its cheapness, partly because of an indefinable feeling that it is their natural home, the time-honoured, old-fashioned straw-skep is chosen. Of course it is a 'swarm' that is secured; and when hived, there is nothing but bees in the hive—no comb and no stores. The bees, before leaving the old hive, gorged themselves with a supply, and this they at once begin to utilise in the building of comb, and so it is soon exhausted. Possibly a spell of rainy weather follows, and the bees are speedily reduced to a state of starvation. This to the man who knows nothing of bee-economy is a matter of no concern; for the strange notion frequently prevails that bees are self-sustaining, and so weather-conditions with the majority have no weight at all. Should the weather prove favourable, the bees sally forth in search of food; and as the first swarms generally come forth about the time the corn-fields are golden with wild mustard—it is called skellock in Scotland, charlock in England—they generally find plenty of food, and comb-building and egg-laying go on rapidly. But this, in the case of the bee-keeper who gets the bees before he gets his knowledge, wholly depends on the weather. Should it be broken, the work proceeds slowly, and instead of the queen-bee laying from two to three thousand eggs daily, as she will do when cells are built rapidly, perhaps only a hundred or two are laid, and that only by fits and starts, for bees only breed when food is plentiful. Under such conditions, the colony, instead of rapidly gaining in number, as is absolutely necessary to success, barely holds its own—for bees are short-lived—and in really bad weather, dwindle and die. The consequence is that the majority lose heart and proceed no further. Even when they hold their own, no profit is reaped; for it is only when stocks are very strong that honey is stored, and this is the secret of successful bee-keeping.

The proper thing to do with a newly got swarm, even in the best of weather, is to get the bees to fill the hive as rapidly as possible with comb and young brood. This is done by feeding. But feeding requires skill, or another mischief will happen. When natural food is plentiful, only a little feeding should be given, and that at night; for then wax-secretion and comb-building will proceed by night and by day, and this is of immense importance. But if too much be given, the bees will build drone-cells instead of worker-cells, and the efforts of the colony will be wasted in rearing bees that only exhaust the stores of the busy workers. Such colonies rarely do any good. Cautious feeding must therefore be observed; but what constitutes cautious feeding wholly depends on the weather; for in wet weather, feeding night and day must go on. When feeding is conducted skilfully, an ordinary hive will be full of comb, and young bees will be hatching out at the end of three weeks. These will speedily make the stock strong, and ready to take advantage of 'every shining hour.' Should the weather at this stage be wet, feeding must still go on, or the young bees will starve. When straw-skeps are used, this is as rapid work as can be looked for; and as it can

be done in a few days when what are called 'bar-frame' hives are used, advanced bee-keepers have mostly abandoned the straw-skep, and even much better hives, such as the Stewarton, for the bar-frame.

Bar-frame hives are so constructed that the combs are each built in a frame—generally ten to a hive—which can be taken out and replaced at will. In this way weak hives may be strengthened by having one or two combs, each containing thousands of young brood and eggs, supplied from strong hives. This is an impossibility in the case of the straw-skep; and for want of such timely aid, many weak stocks have utterly perished or remained unprofitable. Often, too, stocks lose their queen. Ordinary bee-keepers—we are not speaking of clever adepts—in such cases lose their stock too; for unless a new queen be given speedily, the stock will soon perish; and this is what cannot be well done—indeed, the mischief has happened before anything amiss has been noticed—with straw-skeps. In the case of the bar-frames this is easily ascertained; for after blowing a little smoke among the bees, to make them docile, each frame can very easily be lifted out and examined one by one, and the state of matters ascertained. Then, if it is seen that the stock has lost its queen, a frame with newly-laid eggs is taken from a hive with a queen, and given to the queenless one. The bees will then at once begin to raise a queen; for one of the curiosities of bee-life is that the workers can raise either queens or workers from worker-eggs, as may be necessary! Should the stock be very low, it can by the same means be strengthened by bees, or even have a laying queen supplied to it. The great advantage of this will be apparent.

But this is not all, nor nearly all. By filling the frames with 'foundation'—that is, thin sheets of wax impressed with the base of worker-cells—cane-sugar sirup can be given as fast as the bees will take it up, no matter what the weather may be; and they will under such circumstances fill the hive full of comb in three or four days, while the queen will lay her full complement of eggs from the first. As the foundation is thicker than the bees like it, they use the extra wax for the cells instead of secreting it—a slow and a costly process; for it takes a pound of honey or sirup to make an ounce of wax, and it is only secreted in the bodies of the bees slowly—and as the cells are already begun, there is not the slightest danger of rapid feeding producing drone-comb.

While, then, those in the straw-hives are slowly and painfully getting comb ready for brood, and in which to store supplies for winter, those in the bar-frame are taking advantage of every dry hour, and are filling the combs with honey.

Bees that are left pretty much to themselves seldom swarm before the mustard is in bloom, and indeed in many places it is the abundance then that causes swarming. But there is no reason for their passing the time of the mustard-harvest. If from twopence to threepence worth of sugar be given, in the form of thin sirup, weekly to each hive from the beginning of March onwards, breeding will be commenced, and carried on vigorously, and the result will be strong swarms, worth thirty shillings each, early in May. A pound is the usual price paid for an early swarm; but that is usually in June, too

late for the mustard; so that one in time for the mustard is better value at thirty shillings than one six weeks later is at a pound. In other words, three shillings spent judiciously in early spring will secure in a majority of cases two pounds-worth of honey in June; for both swarm and stock have ample time to make ready for the early harvest; under the older system, neither is.

In wet weather, bees in straw-skeps are perforce idle. They need not be so in bar-frames, and the bee-keeper who is alive to his own interests will not allow them to be so. He will take out one or two empty combs, and in their room put frames filled with 'foundation.' Then he will feed. These skeleton combs will be speedily built up to perfect combs, when he will again repeat the process. Shortly he is possessed of as many empty combs as will fill a new hive; and when he gets a new swarm, he puts them in a house fully furnished; and so, instead of spending three weeks of perhaps fine weather furnishing, as we may well say, and losing the harvest of honey, they go to work at once.

In the case of a straw-hive, the combs are fixed. By-and-by the refuse from the young grubs renders the combs uncleanly; rottenness attacks them. In bar-frames, they may be, and are constantly renewed, the old ones being melted down. In straw-hives, the honey is stored in these combs; and when these are filled, supers—that is, smaller hives—are put on the top of the hives, to which the bees have access. In good seasons, they generally fill these. But in thus filling extended space, a large amount of honey is used up, and a large number of bees taken from honey-gathering to secrete wax. In the case of bar-frames, the combs from the body of the hive can be taken out, emptied by means of an extractor, and the empty combs replaced. Under these conditions, a given number of bees in a bar-frame will collect fully three pounds—often much more—for every two that those in straw-skeps can. Then, at the end of the year, every particle may be taken from the bar-frame, and sugar-sirup given instead, for a winter store.

Again, swarms from straw-skeps cannot be regulated, and often come off when no one is near to watch them. They are often thus lost. With bar-frames, a swarm may be made artificially in a few minutes during the dinner-hour, when it is seen they are ready. But we must not particularise further. Only the merest outline has been sketched by us. Ten times more could have been written without exhausting the subject; but we prefer to refer our readers to the excellent publications of the British Bee-keepers' Association; especially would we recommend *Modern Bee-keeping* (London: Longmans), which is cram-full of information, and only costs sixpence.

One consideration more, and we are done. How are our country working-men to be induced to begin? Well, in England there are Associations, which, by lectures and shows—where hive-bees are taken from straw-hives, and combs and everything refitted into bar-frame hives, thus practically instructing the onlookers—are doing much to extend bee-culture. One or two such Societies exist in Scotland, but far too few, and we hope soon to see one in every county. Here is a grand chance for the philanthropic 'helping the poor

to help themselves.' Nothing takes the spirit of self-help and independence out of a man like grinding poverty. Put a man in the way of becoming the owner of two or three hives of bees, and he feels himself a man—an owner of property.

INVENTORS AND INVENTIONS.

THE policy which we have pursued for the last quarter of a century towards inventors and their inventions is inexplicable. In no other country which can lay claim to be considered civilised have they received such scanty encouragement and so much downright hostility. It has, indeed, long been the practice to regard inventors as public nuisances, rather than benefactors, and to consider their projects as ingenious frauds framed to fleece the people, rather than valuable discoveries calculated to advance the commercial progress of the nation. It was doubtless this line of reasoning which led to the system of repressing inventors by creating all sorts of obstacles in the way of their procuring letters-patent, and surrounding protection with a *chevaux de frise* of *L. s. d.* Doubtless many inventions are frivolous, if not fraudulent. For instance, not long since the invention of a machine for making imitation coffee-berries was announced; but an example such as this may be regarded as merely and necessarily incidental, and as in no way affecting the general principle involved. It is of course obvious that any system of patent law must provide against abuse as well as for legitimate use. Few people, probably, are so credulous as to imagine that it is necessary to facilitate the procedure for patenting inventions, without at the same time instituting some system of inquiry into their character and the purposes for which they are intended. The disadvantages under which patentees labour in this country have had the doubly disastrous effect of nipping promising discoveries in the bud and of driving their authors to a less repressive land. The policy of taxing inventions has been frequently condemned as erroneous in principle. It is only a very small proportion of inventors who really succeed, and there are few valid reasons why these should be more heavily taxed than other people whose incomes are earned by their brains. There was a necessity, therefore, for the new Patents for Inventions Bill of 1883, which we are glad to notice will cheapen and facilitate the acquirement of letters-patent.

The chief thing to be guarded against in introducing a new system is the affording additional facilities for the premature and obstructive registration of new processes or inventions. In the American system, for instance, excellent as it is in the main, a practice is in vogue which has the worst effects, and aptly illustrates the danger of facilitating the acquisition of patents too much. Thus, any one may deposit in the secret archives of the American Patent Office a description of an invention, which he can at a small yearly charge keep alive as long as he likes, and thus block any similar invention. This is obviously bad. It has lately been proposed to afford protection to inventors for undeveloped designs; but upon another inventor applying for protection for a similar design, to give notice of the prior

claim, and to bring the parties together, so that they might make some arrangements, or have the merits of their respective claims settled at once. This point is dealt with in the new Patents Bill, which offers increased facilities for the registration of designs. Inventiveness has indeed become so greatly developed in rapidity of late years, and persons experimenting are so afraid of being forestalled, that they protect the crudest ideas, with the inevitable result of retarding the practical usefulness of the discovery and of increasing the difficulties of patenting it. So far as at any rate as the public are concerned, the facilities for procuring merely obstructive patents ought to be greatly restricted. The usefulness and practicability of any new process ought to be compulsorily proved within a reasonable time of its being protected, or the protection declared void. This would certainly stimulate small inventions, a department in which we have of late years been so greatly worsted by foreign competitors; for if inventors found themselves unable to protect impracticable and undeveloped parts of large schemes, many of them would doubtless turn their attention to smaller matters, leaving the more important to those who had the means and the opportunities of properly developing them.

The dearth of small inventions in this country can, however, be sufficiently explained by the fact of the greater costliness of letters-patent here. In America, for instance, a patent can be procured for seven pounds; while with us it costs one hundred and seventy-five pounds—a difference which is certainly significant. Again, in Germany, the total cost of a patent is seventy-one pounds ten shillings; in Austria, thirty pounds; in France, thirty-two pounds; and in Belgium, fourteen pounds eight shillings. From these figures, it is at once clear that in England the tariff for letters-patent is twenty-five times higher than it is in America, and more than twice as high as it is in Germany—the lowest and the highest of the other countries for which the figures are available.

It is proposed to establish a system of examination as to the nature, novelty, and practical value of patents, by specially qualified examiners, in a similar way to the custom which now prevails in Germany and Prussia; and this will doubtless sooner or later be done; but an initial difficulty arises from the fact, that men capable of satisfactorily discharging these duties would be hard to find. An example of the results of employing incompetent examiners to test the practical value of patents, is afforded by two of the most valuable English patents of modern times, the Bessemer process and the Siemens' process. The former of these was refused protection in Prussia, and the latter in Germany, by the official examiners. In England there is no power of refusing a patent so long as the regulations are complied with. The Commissioners—who consist of the Lord Chancellor, the Master of the Rolls, and the two law officers—have no discretion as to the novelty or utility of any invention. So technical, too, is the description of most inventions, that the necessity for their being dealt with by a competent tribunal has frequently been urged.

The new Patents for Inventions Bill of 1883 proposes to abolish these Commissioners, and to delegate their powers to a comptroller acting

under the Board of Trade. Though far from covering all the points we have mentioned, this new act is a great improvement upon the old system. Should it become law, the first expenses will be reduced, but the total fees for the fourteen years will still amount to about one hundred and fifty-four pounds. It will also so far dispense with the services of the patent agent. Under the present law a patentee, or his agent, must call at least seven times at the patent office; under the new bill he need only call twice, or communicate by post if more convenient.

Letters-patent must be regarded from two points of view—that of the public, and that of the inventor. To a certain extent, these must necessarily be antagonistic, since the possession of a monopoly even for a short term of years is opposed to the public interest, except upon the supposition that its advantages could not be enjoyed under any other terms. On the other hand, however, if letters-patent are regarded more in the light of a reward for research than as the grant of a monopoly, it is difficult for any one to contend that a *bonâ-fide* inventor is not entitled to them. It is, to say the least, very doubtful whether a mere money reward to any successful inventor would meet the case so satisfactorily as the patent system. That encouragements of both an honorary and pecuniary character are desirable as stimulants to the national inventiveness, goes without saying; and indeed the legislation required is such as will insure as far as may be the reward being obtained and obtainable by the inventor himself, instead of by the middlemen or capitalists, who under the present costly patent system of this country are the chief people to derive any benefit from the grant of letters-patent. It is now more than ten years since a Select Committee of the House of Commons advised that a comparative view should be taken respecting the law and practice of foreign countries with regard to inventions; and meanwhile, we gladly note the proposed modifications in the new bill.

The Statute of Monopolies, which is the true basis of our patent system, did not inaugurate a new law, but merely enunciated the old rule of the common law, that the right to grant monopolies to inventors of new manufactures was an inherent prerogative of the Crown; and before it became law, it had been decided that a monopoly was properly granted to a man who, 'by his own charge and industry, or by his own wit or invention, doth bring any new trade into the realm.' Thus, in the 'Cloth-workers of Ipswich Case,' it was conceded that the king might in such a case grant by charter that such a man only should use 'such a trade or traffique for a certain time, because at first the people of the kingdom are ignorant and have not the use of it.' Although the entire abolition of patents has been suggested, and amongst others, the plan of rewarding inventors by a money payment, as already mentioned, suggested in its stead, the universal experience of nearly all civilised countries has clearly indicated that granting a patentee the sole right to use his invention for a limited time is the best that can be devised. The only matters which are really in dispute are the amount, and the mode of and time for payment of the fees chargeable, the period for which patents should endure, and the restrictions

which should be imposed with regard to their novelty and utility. The new Patents for Inventions Bill has attempted to deal with all these points, with the beneficent object, we trust, of making the application for future letters-patent a much less troublesome and costly business than heretofore.

CHEAP GAS-LIGHT.

Few people are aware that the light given by any ordinary gas-burner can be greatly increased by simply turning the burner over sideways until it slopes slightly downwards. The flame is thrown out as a horizontal sheet, formed into a saucer-shape by the natural curling upwards of the edges. Mr Fletcher of Warrington has been testing the difference obtained by an average upright, and a horizontal saucer-shaped flame, and finds it averages by photometer about ten per cent. in favour of the latter; but owing to the fact that with this position of flame the light is thrown downwards and is perfectly free from shadow, the actual results in his own works and offices have proved that a burner consuming five cubic feet per hour, with a horizontal flame, gives a better light and is better for work than an upright flame consuming six cubic feet per hour. It is, in fact, somewhat of an approach to the principle of the Siemens' regenerative burner, with the advantage of costing nothing. This is not new to experts, but it is a bit of useful information to the public, who may by this means either increase their light, or reduce their gas-bills without any expense. It is something to make a little profit or effect a little economy nowadays without having first to put one's hand in one's pocket. Most people will probably still adhere to the wasteful glass globe and upright flame which make our living-rooms so unpleasantly close; but there are millions of burners in offices and works which can be simply turned over to the advantage and profit of the users.

THE LILIES OF THE FIELD.

THE Saviour's flowers! How pure and fair
Those simple 'Lilies of the Field';
How sweet as incense to the air,
Their fragrant snow-white blossoms yield!

Not Solomon in glory bright,
In gorgeous and in gold array,
Was such a fair and wondrous sight
As in their modest beauty, they!

They weave not, the white robes they wear;
They toil not, neither do they spin;
No burdens like frail man they bear,
For—unlike him—they know not sin.

O emblems fair, O emblems sweet,
Of Christian humbleness of heart!
May we, as pure, at Heaven's feet
Sit low, and 'choose the better part,'

That to the 'meek in heart' alone
Is by the Great Redeemer given;
That brings us kneeling to His Throne,
Throws wide the Golden Gates of Heaven.

A. H. B.

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